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TITLE: Method for detection of PF4A receptor nucleic acid

As used herein, the term "inflammatory disorders" refers to pathological states resulting in inflammation, typically caused by neutrophil chemotaxis. Examples of such disorders include T cell inflammatory responses such as inflammatory skin diseases including psoriasis; responses associated with inflammatory bowel disease (such as Crohn's disease and ulcerative colitis); adult respiratory distress syndrome; dermatitis; meningitis; encephalitis; uveitis; autoimmune diseases such as rheumatoid arthritis and Sjogren's syndrome, diseases involving leukocyte diapedesis; CNS inflammatory disorder, multiple ischemia reperfusion injury, traumatic shock, hypovolemic shock, organ injury syndrome secondary to septicemia or trauma; alcoholic hepatitis; antigen-antibody complex mediated diseases; inflammations of the lung, including pleurisy, alveolitis, vasculitis, pneumonia, chronic bronchitis, bronchiectasis, and cystic fibrosis; etc. The preferred indications are inflammatory bowel disease such as ulcerative colitis or a chronic lung inflammation.

Glycosylation of polypeptides is typically either N-linked or O-linked. N-linked refers to the attachment of the carbohydrate moiety to the side chain of an asparagine residue. The tri-peptide sequences asparagine-X-serine and asparagine-X-threonine, where X is any amino acid except proline, are the recognition sequences for enzymatic attachment of the carbohydrate moiety to the asparagine side chain. Thus, the presence of either of these tri-peptide sequences in a polypeptide creates a potential glycosylation site. O-linked glycosylation refers to the attachment of one of the sugars N-acetylgalactosamine, galactose, or xylose, to a hydroxyamino acid, most commonly serine or threonine, although 5-hydroxyproline or 5-hydroxylysine may also be used. As noted above, the IL-8 receptor contains 6 putative N-linked glycosylation sites.

Addition of glycosylation sites to the PF4AR polypeptide is conveniently accomplished by altering the amino acid sequence such that it contains one or more of the above-described tri-peptide sequences (for N-linked glycosylation sites). The alteration may also be made by the addition of, or substitution by, one or more serine or threonine residues to the native PF4AR sequence (for O-linked glycosylation sites). For ease, the PF4AR amino acid sequence is preferably altered through changes at the DNA level, particularly by mutating the DNA encoding the PF4AR polypeptide at preselected bases such that codons are generated that will translate into the desired amino acids. The DNA mutation(s) may be made using methods described above under the heading of "Amino Acid Sequence Variants of PF4AR Polypeptide".

Koch et al., "Interleukin-8 as a Macrophage-Derived Mediator of Angiogenesis"
Science 258:1793-1801 (1992).